

REMARKS

Applicant respectfully requests consideration of the subject application.

Office Action Objections and Rejections Summary

Claims 19 and 51 have been objected to for informalities. Claims 4 – 5, 17, 21 – 25, and 47 have been objected to as being dependent upon a rejected base claim. Claims 37 – 43 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1 – 3, 6 – 15, 18 – 20, 26 – 30, 32 – 36, 44, 45, 48 – 55, and 57 - 58 have been rejected under 35 U.S.C. §102(b) as being anticipated by Admitted Prior Art, pages 1 - 4 (hereinafter “APA”). Claims 16, 31, 46, 50, and 56 have been rejected under 35 U.S.C. §103(a) as being unpatentable over APA in view of U.S. Patent No. 6,275,493 to Morris et al. (hereinafter “Morris”).

Status of Claims

Amendments to the claims are presented hereto in the interest of overcoming Examiner’s objections and rejections. Claims 1 – 58 remain pending in this application. Claims 1, 2, 6, 9, 19, 27, 34, 37 – 44, 51, and 52 have been amended. The amendments are supported by the specification and no new matter has been added. No claims have been canceled. No new claims have been added. Applicant reserves all rights with respect to the doctrine of equivalents.

Claim Objections

Claims 19 and 51 have been objected to for informalities. Claims 19 and 51 have been amended to provide the correct subject matter with respect to the “second message.” As such, removal of the claim rejection is respectfully submitted.

Rejections under 35 U.S.C. §101

Claims 37 – 43 have been rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. The Examiner has stated the following:

Data structures (an inter-nodal message) not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. See MPEP 2106.

Claims 37 – 43 have been amended to include a computer-readable medium encoded with data structure that defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized. As such, applicant respectfully submits that claims 37 – 43 are now patentable and request removal of the rejection under 35 U.S.C. §101.

Rejections under 35 U.S.C. §102(b)

Claims 1 – 3, 6 – 15, 18 – 20, 26 – 30, 32 – 36, 44, 45, 48 – 55, and 57 – 58 have been rejected under 35 U.S.C. §102(b) as being anticipated by APA. Applicant respectfully submits that claims 1 – 3, 6 – 15, 18 – 20, 26 – 30, 32 – 36, 44, 45, 48 – 55, and 57 – 58 are patentable over the APA. The APA provides a method for clearing connections of a port between a first node and a second node. In particular, the APA provides:

ATM based networks can maintain a large number of connections per port and the task of clearing (disconnecting) all connections of a port is inefficient using the ATM Forum provided prior art. In order to clear a

Virtual Channel, the ATM Forum prior art provides a message called RELEASE and a corresponding message called RELEASE COMPLETE. Well known to those skilled in the art, the RELEASE and the RELEASE COMPLETE message are each transmitted along the signaling channel between connecting nodes. A first network node issues a separate RELEASE message for each connection, and transmits the RELEASE message to connecting nodes for propagation along the network for eventual reception by a second network node. The second network node then initiates and transmits a corresponding RELEASE COMPLETE message as an acknowledge to the RELEASE message for that separate connection that is transmitted across the network to the first network node.

(Application as filed, page 1, lines 21 – 25, and page 2, lines 1 – 7).

The APA also provides:

As illustrated, because the current RELEASE and RELEASE COMPLETE messages together clear only a single connection, in order to clear a port ***all data connections at the port must be cleared separately*** by issuance of multiple RELEASE and RELEASE COMPLETE messages, one pair for each connection. If there is network congestion, a connection clearance in accordance with the ATM Forum prior art may require a retransmission. Thus a single connection, while requiring a minimum of two messages, may require more than two messages per connection, and a port having more than “n” connections while requiring a minimum 2 “n” messages, may require many more messages than that number. Each RELEASE and each RELEASE COMPLETE message consumes network resources including processor time, memory time, processor bus time, node transmission bus time, and node switch time; all of which impact overall node transmission bandwidth and hence network performance. (emphasis added)

(Application as filed, page 3, lines 16 – 24, and page 4, lines 1 – 4, and Figure 2).

As such, the APA provides no method for clearing multiple connections at once, other than by individually clearing each connection. In other words, noting in the APA discloses a bulk clearing of connections between two nodes.

In contrast, independent claims 1, 6, 9, 27, 34, 44, and 52 have each been amended to include the limitation of connections that are cleared in bulk, and not individually. As such, applicant respectfully submits that claims 1, 6, 9, 27, 34, 44, and 52 are patentable over the APA and request removal of the rejection under 35 U.S.C. §102(b).

Claims 2 – 5 depend from independent claim 1, claims 7 – 8 depend from independent claim 6, claims 10 – 26 depend from independent claim 9, claims 28 – 33 depend from independent claim 27, claims 35 – 36 depend from independent claim 34, claims 45 – 51 depend from independent claim 44, and claims 53 – 58 depend from independent claim 52. As such, these dependent claims include the limitation of the bulk connection clearing found in the respective independent claim. Accordingly, applicant respectfully submits that these dependent claims are also patentable over the APA and request removal of the rejection.

Rejections Under 35 U.S.C. §103(a)

Claims 16, 31, 46, 50, and 56 have been rejected under 35 U.S.C. §103(a) as being unpatentable over APA in view of Morris. Applicant respectfully submits that claims 16, 31, 46, 50, and 56 are patentable over APA in view of Morris. As discussed above, nothing in APA discloses connections that are cleared in bulk, and not individually. Morris discloses a method for managing Switched Virtual Circuits and Switch Cross-connects to support ATM networks. In particular, Morris includes the following disclosure:

The apparatus and the methods in accordance with the invention provide a mechanism for rapidly establishing communications connections through an ATM network while ensuring that the resources of the ATM network are efficiently utilized. In accordance with the method, SVCs are set up between a first and second ingress/egress point in the ATM network and the SVCs are cached for later use by the network so that network resources are not required for SVC setup. This ensures that real-time services can be switched through the ATM network with a minimum of delay. It also ensures that network resources are efficiently used since signaling overhead is minimized.

In accordance with a preferred embodiment of the invention, the cache of SVCs is managed by software which monitors SVC usage and adds SVCs to, or removes SVCs from, the cache as demand for service by a specific application increases or decreases. In accordance with the preferred embodiment of the invention, SVCs are established and maintained in accordance with the characteristics of the service offered by the communications application. The SVC caches are therefore preferably maintained by service characteristic as well as by application.

(Morris, col. 4, lines 1 – 22).

As such, nothing in Morris teaches or suggests connections that are cleared in bulk, and not individually. As such, Morris fails to cure the deficiency of the APA.

It is respectfully submitted that Morris and APA do not teach or suggest a combination with each other. It would be impermissible hindsight, based on applicant's own disclosure, to combine Morris and APA.

Applicant also respectfully submits that there is no motivation to combine Morris and APA.

The Examiner has stated the following:

Regarding claims 16, 31, 46, 50, and 56, the APA fails to explicitly disclose ATM node includes a database of the first connections that are cleared from the ATM node, and a data base of the first connections that are cleared from the ATM node from which are deleted the second connections in the received second message type. Morris, on the other hand, discloses ATM nodes, which include ATM switches and cross-connect apparatus, use routing tables to map VCI and VPI values received in an incoming cell to outgoing values used to select an outgoing link as a way of routing the associated cell through the ATM node. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made includes the teaching of Morris in the ATM nodes of APA for the table or database is essential part of the ATM communication for maintaining the VCINPI for active connections.

Here, the Office Action merely states an advantage of substituting the ATM nodes from Morris with the method of the APA without explaining what specific understanding or technological principle within the knowledge of one of ordinary skill in the art would have suggested the combination.

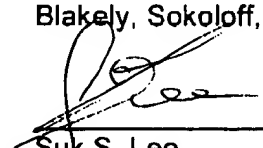
Even if the Morris and APA were combined, the combination would still not include all the limitations of independent claims 9, 27, 44, and 52, in particular, the limitation of the connections being cleared in bulk. As claims 16, 31, 46, 50, and 56 depend from one of independent claims 9, 27, 44, and 52, applicant respectfully submits claims 16, 31, 46, 50, and 56 are patentable over Morris and APA under 35 U.S.C. §103(a).

If the allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Suk Lee at (408) 720-8300. If there are any additional charges, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

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IN THE DRAWINGS:

Examiner requests that **FIG. 1** and **FIG. 2** be designated by a legend such as –Prior Art-. Applicant has amended **FIG. 1** and **FIG. 2** accordingly. Attached hereto are replacement sheets and an additional set marked up in red ink indicating changes.

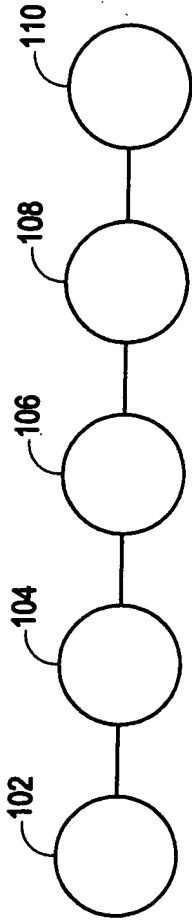


FIGURE 1

(Prior Art)

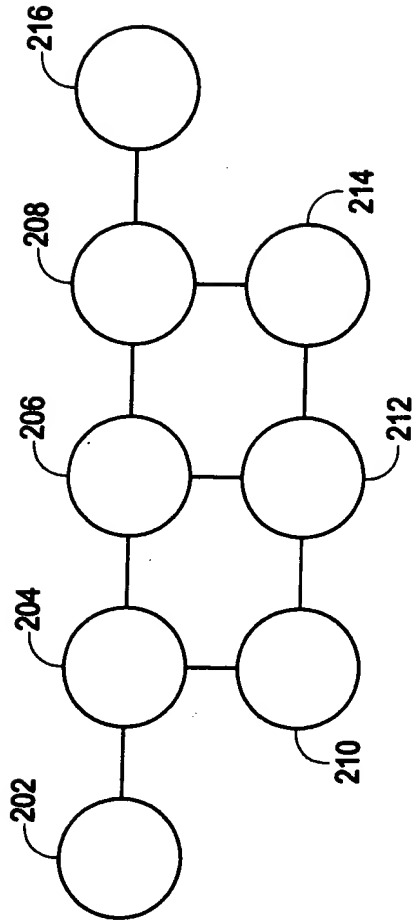


FIGURE 2

(Prior Art)